

3 Denver RTD Light Rail

OVERVIEW: TRANSIT SYSTEM CHARACTERISTICS

In October 1994, the Regional Transportation District (RTD) began service on its Central Corridor light rail line through the City of Denver. The opening of the Central Corridor marked the return of light rail to the Denver metropolitan area four decades after the city's former trolleys went out of service.

Light rail currently serves 15 stations along its 5.3-mile ground-level route in the City of Denver. One- to three-car trains run in the streets in the downtown and northern portions of the route. Trains operate at-grade in a restricted-access railroad right-of-way in the southern portion, reaching maximum speeds of 55 miles per hour. With trains every six minutes during rush hour and every ten minutes at other times, the light rail system carries more than 16,000 riders each weekday, and ridership continues to grow. The tracks form a loop between 14th and 19th Streets in downtown Denver, and the light rail links with the 16th Street Mall, an attractive pedestrian and transit mall in the heart of downtown. (Free shuttles run every 90 seconds along the transit mall during peak periods.) The Central Corridor cost \$116.5 million to construct, and its annual operations and maintenance costs are \$4.6 million.

Eventually, the Central Corridor will form the spine of a planned eight-corridor regional rapid transit system that will extend into Denver's suburbs of Englewood, Sheridan, and Littleton. In 1994, the Denver Regional Council of Governments approved the RTD's plan for the Southwest Corridor light rail line extending from the southern terminus of the Central Corridor south to the City of Littleton. Construction on the Southwest Corridor began in January 1997, and the line is scheduled to open in the year 2000. The new grade-separated line will have five stations, four with Park-and-Rides, along its 8.7 miles of reserved right-of-way track. Construction of the Southwest Corridor light rail line is expected to cost \$177.4 million.

Rapid transit plans for the Denver metropolitan area currently include light rail extensions along several additional corridors, as well as commuter rail service and additional bus and High Occupancy Vehicle lanes.

Station characteristics are shown in Table 3-1.

Table 3-1.

DENVER RTD LIGHT RAIL STATION CHARACTERISTICS

<i>Average Weekday Boardings in 1995</i>	<i>Type of Structure</i>	<i>Parking Lot?</i>	<i>Surrounding Urban Form</i>

Central Corridor

30th & Downing	?	Grade (in street)	Yes	Shopping Strip/Urban Res.
30th & Welton	903	Grade (in street)	No	Shopping Strip/Urban Res.
29th & Welton	197	Grade (in street)	No	Shopping Strip/Urban Res.
27th & Welton	(not open)	Grade (in street)	No	Shopping Strip/Urban Res.
25th & Welton	347	Grade (in street)	No	Shopping Strip/Urban Res.
20th & Welton	271	Grade (in street)	No	Urban Core (edge/parking)
18th & California	391	Grade (in street)	No	Urban Core
16th & California	863	Grade (in street)	No	Urban Core (ped./transit mall)
14th & California	60	Grade (in street)	No	Urban Core (convention ctr.)
18th & Stout	1079	Grade (in street)	No	Urban Core
16th & Stout	2228	Grade (in street)	No	Urban Core (ped./transit mall)
14th & Stout	410	Grade (in street)	No	Urban Core (convention ctr.)
Auraria	901	Grade (in street)	No	Major Inst./Shopping Strip
10th & Osage	410	Grade (restricted)	No	Urban Residential (subsidized)
Alameda	1585	Grade (restricted)	Yes	Shopping Strip/Highway
I-25 & Broadway	3360	Grade (restricted)	Yes	Highway

¹ Light rail ridership has increased significantly from the 13,000 measured in this Summer 1995 study, but RTD has not conducted a more recent count of boardings at each station. Typically, RTD takes counts several times monthly at two maximum load points (Auraria Station south of downtown and 20th & Welton north of downtown). The March 1998 survey showed ridership of well over 16,000, and summer ridership is typically somewhat higher than in the winter.

² At grade stations are located in the street right of way unless otherwise indicated.

STATION AREA PLANNING FRAMEWORK

RTD and the City of Denver have undertaken some efforts to encourage transit-supportive development around light rail stations, but no joint developments have been finalized to date. Currently one joint development is pending at a Park-and-Ride in a future station area. RTD is considering a range of alternatives for bringing the private sector into transit station areas, from small vendors to major new buildings. The City of Denver has worked with developers in conducting its comprehensive planning for the RTD system, and RTD staff have been involved in these efforts.

In September 1995, the City of Denver initiated its Light Rail Station Area Development Program to “promote growth around the stations that have the potential to maximize transit ridership and enhance neighborhood livability.” The City focused its planning efforts around a number of light rail stations, including the Five Points area north of downtown and the four stations south of downtown along the Central Corridor. The City did not include the downtown stations on Stout and California streets in the development program, because staff believed those stations had already received considerable planning support. The City has convened a light rail program management group which includes RTD and every major city agency, including economic development, urban renewal, planning, public works, and transportation.

FIVE POINTS STATIONS

The City of Denver worked with a range of stakeholders to develop a concept plan for station areas in the Five Points business district on Welton Street between 23rd and 30th Streets. Four light rail stations are closely spaced within a few blocks of each other along Welton Street (at 25th, 27th, 29th, and 30th), and the 30th & Downing terminal station is also part of the Five Points cluster. The City considered the Five Points stations as a group in developing a concept plan for the area. The area includes an old business strip in an ethnically diverse neighborhood that includes some public housing developments as well as single- and multi-family dwellings. In developing a plan for Five Points, the City worked closely with developers, landowners, and other stakeholders to reach consensus on a couple key projects as well as implementation measures. Significant new development has not yet come to the area, but the City views implementation of the concept plan as an ongoing effort. The existing land uses and economic characteristics of Denver's Five Points stations exhibit some similarities to the proposed station areas along Rainier Avenue and Martin Luther King, Jr., Way in southeast Seattle.

I-25 & BROADWAY STATION

The I-25 & Broadway station currently constitutes the southern terminus of the Central Corridor light rail line. This station will form the connection to the new Southwest Corridor scheduled to open in July 2000, as well as the Southeast Corridor which RTD plans to open in 2008. The station is in an old industrial area, and the City of Denver worked with a range of local interests to develop a concept plan for redevelopment of the station area. A British company recently purchased a key site, but redevelopment plans have been put on hold while the company undergoes a restructuring. The City is also trying to form an urban renewal district in the station area, and it plans to change the zoning to a Planned Unit Development (PUD) to facilitate mixed-use development. The I-25 & Broadway station serves as the major bus-to-rail transfer point in the RTD system, with about 30 routes connecting to the station. It is also the light rail system's largest Park-and-Ride to date, with more than 1000 parking spaces. This station receives almost no walk-on traffic; nearly all of its thousands of weekday boardings arrive by bus or car. This station may provide lessons for Seattle's Northgate terminus and the proposed Roosevelt & I-5 station.



STATION AREA DEVELOPMENT TRENDS

Neither RTD nor the City of Denver has tracked development trends over time around light rail station areas. They have not yet formally assessed new office and residential construction in station areas or analyzed changes in property values and rents around the light rail system. The Central Corridor is only about five miles long, and the line has been operating for less than four years. Accordingly, land markets have not yet had much time to react to the influences of the light rail system. The Five Points area north of downtown remains economically depressed, and its high crime rate has made it difficult to lure new development. Elsewhere in the region property values are skyrocketing, both near the light rail as well as away from station areas, making it difficult to discern the influence of transit on property values and land use. As the RTD light rail system expands in the Denver metropolitan region in the future, planners hope to gather more information on development trends associated with rail transit.

FACTORS INFLUENCING STATION AREA DEVELOPMENT

ECONOMIC GROWTH IN THE DENVER METROPOLITAN AREA

The Denver metropolitan area is growing rapidly as people from other areas relocate to the region, and particularly strong growth is expected along the Southwest Corridor light rail line currently under construction. The rapid growth in the Denver area has helped fuel commercial and residential development around light rail stations, as well throughout the metropolitan region. Development has occurred more slowly in some areas, however. The Five Points area, on the Central Corridor north of downtown, is one of the oldest business and residential communities in the region, and new growth has been slow to enter this area.

SUPPORTIVE LOCAL LAND USE AND DEVELOPMENT POLICIES

The City of Denver worked with stakeholders to develop a concept plan for station areas in the Five Points district north of downtown. Major zoning changes have not yet occurred around station areas, as the City believes that existing zoning is sufficient in most cases to allow for new transit-supportive development without rezoning. The City of Denver's existing zoning ordinances also facilitate the creation of Planned Unit Developments without significant changes to underlying zoning. The City expects more zoning conflicts to occur in the development of the Southeast Corridor, which will pass through several higher-income, single-family residential neighborhoods when it opens in ten years.

JOINT DEVELOPMENT

No joint developments have been completed yet at Denver's light rail stations, though RTD has one project pending at a Park-and-Ride in a future station area. The City hopes to work

with RTD to encourage more joint development efforts with the creation of future light rail lines. The City and RTD are in the early stages of developing guidelines and procedures for transit-oriented joint development projects.

PUBLIC FUNDING

Direct public investment in station area development has not been a major factor in the RTD system to date. The City of Denver's urban renewal agency is becoming involved in plans for redevelopment of an old industrial site at one of the stations south of downtown, but the project has not yet come to fruition.

IMPLEMENTATION TOOLS

Station Area Planning

As described in the preceding sections, the City of Denver has developed concept plans for station areas, and planners expect to develop more plans for new station areas in the future.

Non-rail Infrastructure Investments to Improve Pedestrian Amenities and Access

The City of Denver has invested in non-rail infrastructure improvements around several stations. Around the downtown stations, streetscaping and tree planting have improved the pedestrian environment. Efforts are underway for the Five Points stations, including one site where a hospital is being torn down and replaced with 2000 units of middle-income housing. The housing is located a fair distance from the light rail station, so the City is undertaking efforts to improve the connection and make it more pedestrian-friendly.

Shared Parking and Parking Management

The City of Denver has instituted a number of parking restrictions in the downtown area. The City has established a maximum allowable amount of parking per square foot of office space, and it has no parking minimum. Accordingly, new construction can be built without providing parking. Parking has not been a significant issue along the north segment of the Central Corridor, but the southern stations have experienced major parking problems. RTD has expanded the free Park-and-Ride at the I-25 & Broadway station several times, but it continues to operate at capacity. RTD is working to prevent parking from overflowing into surrounding residential neighborhoods. Until recently, a major shopping center had shared 300 to 400 parking spaces with light rail riders, but the arrangement terminated abruptly when the retailers decided they needed additional parking spaces. RTD is working to establish a more stable agreement with the retailers to provide shared parking.

Expedited Permits and Reviews

The City of Denver does not offer expedited permitting to transit-oriented development projects, but it is currently in the process of streamlining its permitting process for all applicants.

Zoning and Rezoning

Significant rezoning has not occurred in light rail station areas, but the City of Denver expects it will occur with the development of the Southeast Corridor, which is currently in the preliminary planning stages.

Land Assembly

Public agency land assembly has not occurred, but Denver's urban renewal agency will likely undertake such an effort for an old industrial site that it wishes to develop at one of the southern light rail stations. The redevelopment agency is interested in acquiring land and then presenting a Request for Proposals to developers for creation of a transit-oriented development on the site.

Direct Public Investment in Projects

Except as described above, significant direct public investment in projects has not yet occurred to date.

Local Transit Service Design

RTD reconfigured its bus service to provide riders to the light rail system. Under the new system, suburban express buses end at light rail terminus stations, and riders transfer to the LRT to complete the trip downtown. The I-25 & Broadway station is the major bus/rail transfer point, though some buses connect at the Alameda and 30th & Downing stations as well. The connections are synchronized, so that trains are waiting when the buses arrive. With light rail trains operating at capacity, RTD recently restored some of its bus service to downtown.

SUMMARY ASSESSMENT; IMPLICATIONS FOR SEATTLE

The small size and short history of the Regional Transportation District's light rail system make it difficult to draw firm conclusions and lessons at this early stage, as significant changes have not yet occurred on the ground in many areas. However, the Denver experience highlights several lessons relevant to Seattle.

- **Plan Early and Often.** It is important to initiate station area planning and design efforts early in the light rail planning process. Planners should consider existing as well as forthcoming land uses during station design, and they should work with other agencies and developers throughout the planning process. For example, adjacent to the Alameda station, the City's urban renewal agency helped facilitate construction of a major "big box" retail center that turns its blank back wall towards the light rail station. The redevelopment agency is now more cognizant of the benefits of transit-oriented development, but the results of the oversight at this station will be challenging to reverse. Interim land use controls, or simply more communication early on, might have helped prevent this situation.
- **Redevelopment in Economically Disadvantaged Areas.** Denver's Five Points district

may provide some parallels to portions of the Rainier Valley corridor in Seattle, as both have economically depressed areas, older businesses, residential neighborhoods, and some public housing. The City of Denver's concept plans to date have not yet led to significant new development in the area, highlighting the need for additional tools to spur development in areas where the underlying market conditions may be weak.

- Tools and Goals for TODs. The current shortage of significant joint development or transit-oriented development around most of Denver's light rail stations suggests that RTD and the municipalities – and Seattle at its own station areas – may need to employ additional policy tools to ensure that appropriate transit-supportive development occurs in light rail station areas. For transit-oriented development to occur and succeed, local governments and transit agencies must be committed to the goal and willing to devote the resources necessary to achieve it.

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